## **ABSTRACT OF THE INVENTION**

A method separating for small molecules from an aqueous solution is presented. The method can be used selectively separate small molecules from a solution while leaving untargeted molecules dissolved in the solution. The method uses polymer filtration to selectively remove the small molecules from the aqueous solution. An aqueous solution containing the dissolved small molecule is contacted with a polymer which is capable of forming a complex with the small molecule. The aqueous solution is then subjected to ultrafiltration which creates a concentrated solution of the polymer-small molecule complex. The small molecule may be released from the polymer and the polymer recycled for another round of removal.

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